



Sixth International Human Factors Rail Conference

Programme

6-9 November 2017



Welcome to the Sixth International Human Factors Rail Conference

We are delighted to be hosting you in London. This event has grown steadily over the years, demonstrating the increasing importance of the human factors discipline to the safety, performance, reliability and comfort of our railways.

As in previous years, we welcome delegates from across the world from academic and research institutions, consultancies, regulators, suppliers, manufacturers, infrastructure managers and operators. It's going to be a great mix of people and we hope you're looking forward to it.

Our conference programme covers a vast range of themes with the passenger-train interface, culture and 'future railways' topics being particularly popular. We are pleased to offer a comprehensive programme of technical visits this year, which we know you'll really enjoy. We are also looking forward to the increasingly popular poster session which will lead into our drinks reception on Monday 6th November. Our conference dinner at Oxo 2, situated on the South Bank of the Thames, will provide a fantastic opportunity for delegates to mingle while soaking up the atmosphere of our vibrant capital city.

We hope that the conference will allow you to gain knowledge about the latest work and thinking taking place in rail human factors and enable you to make valuable contacts with other people working in this area.

The conference has been organised by RSSB, the University of Nottingham and Network Rail with support from the UIC, EURA, RAIB, ORR and CIEHF. Special mention should go to Ann Mills, Aoife Finneran, Anita Weltz, Maria Pieretti and Helen Judd, who have been at the heart of this year's arrangements. In addition, David Golightly, Abigail Fowler, Brendan Ryan and Shalaka Kurup, affiliated with the Centre for Rail Human Factors at the University of Nottingham, have provided editorial expertise to the conference proceedings. Mike Carey has supported us in the organisation of the technical visits.

We welcome sponsorship from Systra Scott Lister and Ricardo Rail at this year's event.

We hope you get the best out of the conference – above all, enjoy it!

The conference organising committee

Conference venue information

The conference is being held at etc. Venues Prospero House, London

www.etcvenues.co.uk/venues/prospero-house

Address:

etc. Venues,
Prospero House,
241 Borough High St,
London,
SE1 1GA

Wi-fi: Connect to etcvenues, passcode: wifi8117

The conference programme can be accessed electronically by following this link:

<http://programme.exordo.com/rhf2017/>

A cloakroom is available on site.

Breakfast and lunch will be provided each day along with tea, coffee and biscuits during refreshment breaks.

On Monday 6th November we will be hosting a drinks reception at Prospero House. Canapes will be available along with beer, wine and soft drinks.

Conference dinner

This year the conference dinner will be held at OXO2 on Tuesday 7th November.

www.oxo2.co.uk

Address:

Oxo2,
Level 2,
Oxo Tower Wharf,
Bargehouse Street,
London,
SE1 9PH

A staffed cloakroom will be available.

From 19:00 canapes and sparkling wine will be served followed by a three-course dinner with coffee.

Technical visits

Technical visits are being held on Thursday 9th November. Details of the technical visits will be given out at registration including timings and key contacts.



Ricardo
Rail

Human Factors

A global team at the forefront of human factors research and cross-industry application.

We offer a range of human factors support across the rail environment, from the design of control rooms and public spaces to the configuration of driver cabs and the development of intuitive software systems.

Our extensive experience of rail – and other modes – across Europe and Asia not only gives us an in-depth understanding of industry standards, it also provides opportunities to transfer best practice from region to region, and from one mode to another.

Rolling stock

Our services range from supporting the design and testing of driver cab layouts to advising on the introduction of trainborne systems including:

- European Train Control System
- Automatic Train Protection
- Global System Mobile-Railway
- Train Management Systems
- Driver Advisory Systems
- Driver Safety Advice
- Passenger emergency alarms

Signalling

With rich experience of Human Machine Interface (HMI) design principles, international standards and end-user engagement, we advise clients across all aspects of signalling design and operation.

Services and expertise includes usability reviews, alert system integration, migration management, workload assessments, training and human factors assurance.

Operations

We help railways maintain the highest possible standards of safety and quality for staff and passengers alike.

Previous assignments have ranged from assessing road user behavior at level crossings, to helping maintenance contractors develop technologies for track inspection.

We also help clients improve PRM accessibility and advise on introducing enhanced wayfinding around station concourses and surrounding environments.

For more information on how Ricardo can help your organisation visit: rail.ricardo.com
Or contact one of our experts at: railUK@ricardo.com or +44(0)1332 268700

Fully integrated projects – fully assured

Systra Scott Lister is part of the Global SYSTRA Group, with offices across Australia, the UK and Singapore. We are an agile and dynamic engineering consultancy and a trusted advisor to many leading transport organisations across the world.

Our growing workforce consists of highly skilled professional's that consistently provide high-value project, engineering and consulting expertise. We have a unique blend of transport sector-experience combined with deep engineering know how. These abilities ensure that clients' projects, however complex, are less exposed to technical and commercial risks to ensure successful delivery.



SYSTRA Scott Lister has a proven track record in providing high-quality Human Factors services. Our primary vision is to support the successful delivery of some of the most challenging engineering programmes by ensuring that each system is designed with the end user in mind. We have created a team environment that allows people to shine and where positive actions are always recognised at the top of the organisation. Our ultimate satisfaction is seeing our clients reap the benefits of this holistic approach.



Conference programme

Monday 6th November 2017

Rooms with capacities				
Time	Illuminate (300)	Smile 1 (80)	Smile 2 and 3 (80)	Smile 4 (80)
08:30 - 10:00	Registration Refreshments and Breakfast available			
10:00 - 10:15	Conference opening - Ann Mills			
10:15 - 11:00	<p>Keynote address</p> <p>Applying Human Factors expertise when ‘people have had enough of experts’ Overcoming industry inertia by influencing and implementing from the ‘ivory tower’</p> <p>Andrew Taylor, Great Western Railway</p>			
11:00 - 11:20	Break - Refreshments			
	Platform Train Interface & Passengers (1) <i>Emma Lowe NR</i>	Driver reliability <i>Jordan Smith RSSB</i>	Fatigue <i>Toni Flint RSSB</i>	
11:20 - 11:45	Understanding the risk associated with train dispatch (70) <i>Namrita Kohli & Anita Weltz</i>	Exploring the limits of train driver reliability (55) <i>Huw Gibson, Justin Willett, Graham Lewis & Chris Harrison</i>	Fatigue as a factor in high risk rail incidents (117) <i>Dan Basacik, Huw Gibson & Nic Bowler</i>	WORKSHOP Human Factors integration for rail infrastructure projects: A workshop to share best practice, identify opportunities for improvement and address future challenges (124) <i>Richard Bye</i> 11:20 - 13:00
11:45 - 12:10	Travel risk SFAIRP Assessment: An analytic approach adopting bow-tie and barrier approaches (32) <i>Mark Andrew</i>	The impact of innovative devices in the train cab on train driver workload and distraction (19) <i>Vera Verstappen, Marit Wilms & Richard van der Weide</i>	Key performance indicators (KPIs) for staff fatigue management systems (35) <i>Jeremy Mawhood</i>	

12:10 - 12:35	<p>Sliding doors: optimising door closure arrangements to improve boarding and alighting (66)</p> <p><i>Richard Roels, Ed Smith, Natasha Perry, Jordan Smith & Belinda Tucker</i></p>	<p>Curbing train control personnel unsafe acts stemming from unintended errors by focussing on cognitive processes and functions (95)</p> <p><i>Nokubonga (Sma) Ngcamu-Tukula</i></p>	<p>Countering train driver fatigue in automatic train operation (33)</p> <p><i>Niels Brandenburger, Martin Wittkowski & Anja Naumann</i></p>	
12:35 - 13:00	<p>Improving the experience for rail passengers and operators by providing improved crowding information (168)</p> <p><i>James Pritchard & Kirsten Revell</i></p>	<p>Education on looking based on human characteristics (84)</p> <p><i>Tetsuya Komiyama & Koichiro Taki</i></p>	<p>Preparing rail industry guidance on biomathematical fatigue models (45)</p> <p><i>Viravanh Somvang, Philippe Cabon, Brenton Hayward & Ann Mills</i></p>	
13:00 - 13:50	Lunch			
	<p>Platform Train Interface & Passengers (2)</p> <p><i>Sam Waters RSSB</i></p>	<p>Train driving</p> <p><i>Dan Basacik RSSB</i></p>	<p>Competence & Training</p> <p><i>Paul Leach RSSB</i></p>	
13:50 - 14:15	<p>Inclusive design in our London stations - a European perspective (61)</p> <p><i>Toby Garner & Louise Walker</i></p>	<p>Stopping all stations: A human factors approach to platform stopping errors (87)</p> <p><i>Fiona Kenvyn</i></p>	<p>It was acceptable in the 80s - The validation of the train driver psychometric assessment process (108)</p> <p><i>Mary-Elizabeth Cross, Priya Shah & Paul Leach</i></p>	
14:15 - 14:40	<p>Optimising the platform train interface for people with reduced mobility (150)</p> <p><i>Martin Stout, Eric Harris & Derek Hirst</i></p>	<p>Human factors applications of On-Train-Data-Recorders (96)</p> <p><i>Nora Balfe & Sean Geoghegan</i></p>	<p>Selecting high performing train drivers: the role of attention and cognitive flexibility (127)</p> <p><i>Anthea Hickey, Michael Collins & Christopher Jackson</i></p>	

14:40 - 15:05	<p>The impact of on-train camera/monitors (OTCM) remaining on during dispatch on drivers' responses to hazards on the line (189)</p> <p><i>Charlotte Kaul, Huw Gibson & Charlotte Morrison</i></p>	<p>Operational safety indicators using real train driving data (58)</p> <p><i>Rawia El Rashidy, Peter Hughes, Miguel Figueres-Esteban & Coen van Gulijk</i></p>	<p>Taking a Human Factors approach to safety critical communications training: A case study (125)</p> <p><i>Claire Turner, Paul Townsend, Emma Lowe & Huw Gibson</i></p>	
15:05 - 15:25	Break - Refreshments			
	<p>Platform Train Interface & Passengers (3)</p> <p><i>Paul Leach RSSB</i></p>	<p>SPADs</p> <p><i>Huw Gibson RSSB</i></p>	<p>Non-Technical Skills</p> <p><i>Ann Mills RSSB</i></p>	
15:25 - 15:50	<p>Enabling innovation in delivering high capacity rail (46)</p> <p><i>David Watts & Jamie Chan-Pensley</i></p>	<p>Assessing multi-SPAD signals: Establishing a systems approach (86)</p> <p><i>Fiona Kenvyn & Danni Maynard</i></p>	<p>Improving safety and performance through enhanced competence management – The role of non-technical skills (71)</p> <p><i>Philippa Murphy & Priya Shah</i></p>	
15:50 - 16:15	<p>An evaluation of RSSB's guidelines for the management of train and station passenger crowds (15)</p> <p><i>Sam Waters, Patrick Waterson & Michael Woods</i></p>	<p>Integrating data for SPAD management (92)</p> <p><i>Miguel Figueres-Esteban, Peter Hughes, Rawia El Rashidy & Coen Van Gulijk</i></p>	<p>A model for the development of railway trainers in integrating non-technical skills into training and assessment: An international case study of train driver skills development (37)</p> <p><i>Andrew Russell & Joep Von Berg</i></p>	
16:15 - 16:40	<p>Developing non-technical skills to help improve safety at the platform train interface (28)</p> <p><i>Paul Leach</i></p>	<p>Common claims on SPADs – Truth or myth? (81)</p> <p><i>Andreas Lumbe Aas</i></p>	<p>Once upon a time.... using storytelling to promote NTS development (149)</p> <p><i>Emma Lowe</i></p>	

16:40 - 17:05	<p>Ride along: Frequent travellers and information use during the work commute (98)</p> <p><i>Shalaka Kurup, David Golightly, David Clarke & Sarah Sharples</i></p>		<p>A study of extracting and sharing non-technical skills among train drivers in JR East (26)</p> <p><i>Takashi Enomoto</i></p>	
17:10 - 17:30	<p style="text-align: center;">Poster introduction session Ann Mills, RSSB</p> <ul style="list-style-type: none"> • Physiological measurement of human performance: more than meets the eye (138) Abigail Fowler, David Golightly & Sarah Sharples • Practical visualisation and communications tools for changes to complex user roles in the operational railway (65) Dominic Russell, Amanda Elliott & Simon Macmull • A study on behavioural characteristics of elderly pedestrians on railroad crossings (48) Yuji Morimoto, Hiroko Takeuchi & Yuki Ashitaka • Closing the human components of hazards through operational rules, training modules and operational testing (57) Jan Asmussen, Amanda Elliott & Simon Macmull • ETCS fitment in our trains – Tools and techniques (89) Toby Garner & Harry Blanchard • Application of the theory of situational awareness in the context of rail signalling (54) Birte Thomas-Friedrich & Jan Grippenkov • Detecting the undetectable of human-machine interaction to improve rail resilience (100) Salvatore La Delfa, Simon Enjalbert, Philippe Polet & Frederic Vanderhaegen • Human error and mindfulness (9) Angel Martinez & Francisco Ortiz Nasarre • A multi-modal and multi-criterion serious game to support rail eco-driving based on human behaviour learning (90) Ioic Hombert, Salvatore La Delfa & Frederic Vanderhaegen • A field survey of texting while walking in stations (43) Hiroko Takeuchi, Mayuko Ueda, Shizuka Nakamura, Yuki Ashitaka & Kazushige Wada • Evacuation behaviours and rescue activities in railroad tunnel fire accidents (31) Yutaka Yoshida • Development of web resources on fatigue for the rail industry in GB (118) Dan Basacik & Ann Mills • Cyber security threat in future railway (62) Eylem Thron • Testing a high frequency timetable concept with railway traffic operators in a multi-actor simulation setting (152) Stan Albers, Boris de Groot, Julia Lo, Jurjen Mug, Edith Philipsen, Emdzad Sehic, Jan Jaap Vermeire & Cor van 't Woudt • Exploring train drivers knowledge of fatigue reduction strategies within their Train Operating Company (169) Nicola Legg & Gail Steptoe-Warren • Shift2Rail – European Rail Innovation on Human Factors (183) Judit Sandor • Using multi-method approaches to investigate passenger's safety perception in train station environments (193) Andrea Schneider, Jasmin Thurau, Franco Ehrat, Beat Vollenwyder, Eva Krueger 			
17:30 - 19:30	<p style="text-align: center;">Time to view conference posters, mingle with delegates and catch up with old friends Beer, wine, soft drinks and snacks available</p>			

Tuesday 7th November 2017

Rooms with capacities				
Time	Illuminate (300)	Smile 1 (80)	Smile 2 and 3 (80)	Smile 4 (80)
08:30 - 9:00	Refreshments and Breakfast available			
09:00 – 09:45	<p align="center">Keynote address</p> <p align="center">The safety culture stack – building inter-organisational resilience in the aviation industry</p> <p align="center">Barry Kirwan, EUROCONTROL</p>			
	<p align="center">Signaller & Workload</p> <p align="center"><i>Sam Waters RSSB</i></p>	<p align="center">Route Knowledge</p> <p align="center"><i>Alice Monk RSSB</i></p>	<p align="center">Culture (1)</p> <p align="center"><i>Brendan Ryan UoN</i></p>	
09:50 – 10:15	<p>From London to Doha; How to leverage signaller workload benchmarks for new signalling projects (85)</p> <p align="center"><i>Mark Lowten & Paul Salkeld</i></p>	<p>Route knowledge in the GB railway and the route story approach (137)</p> <p align="center"><i>Aoife Finneran, Huw Gibson, Sam Waters, Gemma Say, Glen Brunsdon, Jonathon Gregory & Brendan Ryan</i></p>	<p>Lessons from the design of a resilience engineering based train management in station system diagnostic method (53)</p> <p align="center"><i>Eric Rigaud, Christian Neveu & Stella Duvenci-Langa</i></p>	<p align="center">WORKSHOP</p> <p align="center">Improving safety performance through the application of non-technical skills (72)</p> <p align="center"><i>Philippa Murphy</i></p> <p align="center">09:50 - 13:00</p>
10:15 – 10:40	<p>Measuring rail signaller workload in a highly realistic simulated environment (52)</p> <p align="center"><i>Birte Thomas-Friedrich, Philipp Schneider, Heiko Herholz, & Jan Grippenkovon</i></p>	<p>Route knowledge in Germany: A simulator study (44)</p> <p align="center"><i>Birgit Milius & Anne Lorenz</i></p>	<p>Safety culture: Assessment and continuous improvement – new requirement for safety and performance in railways (63)</p> <p align="center"><i>Lena Kecklund, Jan Skriver & Marcus Lavin</i></p>	
10:40 – 11:05	<p>An innovative methodology to evaluate workload (120)</p> <p align="center"><i>Philippe Cabon & Viravanh Somvang</i></p>		<p>Integrating human factors and safety culture into the railway safety management system (64)</p> <p align="center"><i>Lena Kecklund, Jan Skriver & Sara Peterson</i></p>	
11:05 - 11:25	Break - Refreshments			

	Traffic Management <i>Nora Balfe CRR</i>	User Experience <i>Harvey McIntosh RSSB</i>	Culture (2) <i>Bernard Penners UIC</i>	
11:25 - 11:50	Day in the life of: Finding the value in the everyday (128) <i>Richard Bye</i>	Optimising the design of a Rule Book app through an end-user focussed methodology (59) <i>Jordan Smith</i>	Safety culture across different transport sectors: Collecting data confidentially for better comparisons (93) <i>Chris Langer</i>	WORKSHOP continued
11:50 - 12:15	Thameslink traffic management workload framework: new technology and multiple roles (140) <i>Kate Moncrieff</i>	Measuring user experiences in a railway related environment (24) <i>Birgit Milius</i>	Assessing human factors and organisational culture in the supply of critical rolling stock products (67) <i>Richard Roels, Ed Smith, Ann Mills, John Barber, Graham Nicholas, Matthew Dalton, Belinda Tucker & Kevin Thompson</i>	
12:15 - 12:40	Traffic management systems and human factors impact (110) <i>Ged Morrisroe & Daniel Simmons</i>	WORKSHOP Innovations in signalling design (151) <i>Ben Shaw & Matthew Weingarh</i> 12:15 – 13:05	Showing success in assessment and improving safety culture on the DLR (Industrial application) (104) <i>Vicky Gliddon & David Nicholls</i>	
12:40 – 13:05	New railway, old challenges (144) <i>Anthony Coplestone</i>		Safety climate validation for UK rail infrastructure workers: Analysis of the nomological network for the design engineers and rail maintenance workers (42) <i>Rajkiran Kandola, Matteo Curcuruto & James Morgan</i>	
13:05 – 14:00	Lunch			

	Future Railway (1) <i>Jordan Smith RSSB</i>	Security <i>Jerry Mawhood ORR</i>	Culture (3) <i>Mary-Elizabeth Cross RSSB</i>	
14:00 - 14:25	Challenges and strategies for an effective organisational structure in a complex rail socio-technical system (25) <i>Michelle Nolan-McSweeney Brendan Ryan & Sue Cobb</i>	Adapting operational rules for degraded mode based on a human centred risk assessment (34) <i>Po-Chi Huang & Birgit Milius</i>	Integration of human factors into a safety management system in a metro railway company (88) <i>Pilar Calvo Holgado, Antonio Castellano & Baltasar Gil</i>	WORKSHOP Lost in translation? Turning technical RBTNA findings into practical strategies for non-technical skills development (190) <i>Joanne Smyth & Todd Shardlow 14:00-16:50</i>
14:25 - 14:50	Putting the human at the centre of the Digital Railway (129) <i>Laura Sutton & Richard Bye</i>	Towards an understanding of the security challenges within the railway industry (79) <i>Sethunya Matsie</i>	Non-technical skills: The foundation for a fair safety culture - The human resilience toolbox for the 21st century railway (38) <i>Paul Davison</i>	
14:50 - 15:15	Human Factors input into the Systems architecture for Digital Railway (136) <i>Kate Fairhall & Nic Bowler</i>	Human Factors in rail cyber security (51) <i>Amanda Widdowson</i>	Introducing a human factors approach to incident investigation at the Port of Felixstowe (123) <i>Harvey McIntosh, Alice Monk & Dan Basacik</i>	
15:15 – 15:35	Break - Refreshments			
	Future Railway (2) <i>Mark Young RAIB</i>	Level Crossings & Maintenance <i>Dan Basacik RSSB</i>	Culture (4) <i>Mary-Elizabeth Cross RSSB</i>	
15:35 – 16:00	Can we feed the beast of automation? An analysis of the operational and organisational impact on railway traffic management (56) <i>Amanda Elliott & Simon Macmull</i>	An unorthodox approach to assessing risks at level crossings and trespassing areas (13) <i>Ian Naish</i>	System safety advances in transit and freight rail transportation in the United States (112) <i>Anne Garcia</i>	WORKSHOP continued

16:00 – 16:25	<p>Digitalisation: Harnessing data to improve service efficiency, effectiveness, safety and reliability (115)</p> <p><i>Suzanne Heape, Christopher Lowe, Elizabeth Bowen & Nadia Jouni</i></p>	<p>Development of human factors guidance to manage human errors in axle end re-assembly (121)</p> <p><i>Alice Monk, Paul Ferraby, Huw Gibson & David Fletcher</i></p>		
16:25 – 16:50	<p>User tests of innovative interaction with a 3D operator workstation (16)</p> <p><i>Marc Burkhardt, Damaris Dose, Anne Christ, Nadine Ruth & Elke Grabe</i></p>			
19:00 – 23:30	<p>Conference Dinner – Oxo2, Oxo Tower Wharf, South Bank, London Sparkling wine & canapes on arrival Three course dinner with Tea & coffee</p>			

Wednesday 8th November 2017

Rooms with capacities				
Time	Illuminate (300)	Smile 1 (80)	Smile 2 and 3 (80)	Smile 4 (80)
08:30 - 9:00	Refreshments and Breakfast available			
09:00 – 09:45	<p align="center">Keynote address</p> <p align="center">Health and safety excellence: The relevance of the story behind the London 2012 construction Programme Lawrence Waterman OBE, Park Health & Safety</p>			
	<p>ERTMS Driving (1) <i>Anita Weltz RSSB</i></p>	<p>Human Factors Integration (1) <i>Kate Moncrieff NR</i></p>	<p>Human Performance Classification <i>Priya Shah RSSB</i></p>	
09:50 – 10:15	<p>Safety with ERTMS under scrutiny (36) <i>Heidi van Spaandonk</i></p>	<p>Sydney Metro: Integrating HF principles - how can you tell if it is SFAIRP? (73) <i>Sue Milner</i></p>	<p>Classifying human performance and system failures in the GB rail industry (47) <i>Stephanie Cynk, Dan Basacik, Huw Gibson & Stuart Smith</i></p>	<p>WORKSHOP Independent assurance: What a practitioner should know (103) <i>Harry Blanchard, Toby Garner, Simon Macmull & Amanda Elliott (Approx 1hr)</i></p>
10:15 – 10:40	<p>Coexistent operation of ERTMS and train protection systems (AWS and TPWS) – Data collection methodology for the user testing of the driver machine interface (27) <i>Sam Waters & Charlotte Morrison</i></p>	<p>Rail human factors engineering within agile software development practices (30) <i>Christopher Lowe & Suzanne Heape</i></p>	<p>A proposal of a fuzzy cognitive map modelling human cognitive process with emphasis of situation awareness errors (109) <i>Laila Bouargane & Abdelghani Cherkaoui</i></p>	
10:40 – 11:05	<p>Considering train drivers at the signalling design phase of a Level 1, European Train Control System (ETCS), in a limited supervision mode (77) <i>Kiri-Maree Taggart, Craig Fletcher & Max Hely</i></p>	<p>Designing with drivers: Standardising pictograms in train cabs (29) <i>Laura Lewis, Elaine Thompson, Jamie Capon, Andrew Shirra & Susan Cassidy</i></p>		
11:05 - 11:25	Break - Refreshments			

	ERTMS Driving (2) <i>Anita Weltz RSSB</i>	Human Factors Integration (2) <i>Mike Carey NR</i>	Accidents & Incidents (1) <i>Alice Monk RSSB</i>	
11:25 - 11:50	ERTMS pilot in the Netherlands – impact on the train driver (40) <i>Richard van der Weide, David de Bruijn & Melcher Zeilstra</i>	Addressing the catch 22: No user, no train (102) <i>Fiona Bird & Christopher Patrick</i>	The complexity of railway accident investigations – a system in its own right (91) <i>Jessica Hutchings</i>	WORKSHOP continued
11:50 - 12:15	ERTMS roll out from a train driver’s perspective (7) <i>Richard van der Weide</i>	Human Factors integration with Asian rolling stock manufacturers (74) <i>Karen Priestley & Lisa Kelly</i>	Non-technical skills in rail accidents: panacea or pariah? (133) <i>Mark Young & Tabitha Steel</i>	
12:15 - 12:40	ERTMS transitions: what impact do they have on train drivers? (49) <i>Alice Monk, Mary-Elizabeth Cross, Lynne Collis, Stuart McFarland, Robert Agutter & David Fletcher</i>	Thinking inside the box: GMRT 2161 and the Schrödinger’s cat problem (101) <i>Lisa Kelly & Christopher Patrick</i>	Determining the role of technology in South African railway occurrences (76) <i>Inga Dambuza</i>	
12:40 – 13:05	A review of operational safety during ETCS roll out – a Belgian case study (39) <i>Elaine Thompson, Peter Geens, Bogdan Godziejewski & Joost Bolck</i>		A cross-sectional study exploring the impact of work-related stressors on safety motivation and safety behaviours (97) <i>Maria Matthews, James Morgan & Stuart Webster-Spriggs</i>	
13:05 – 14:00	Lunch			

	Signaller <i>Richard Bye NR</i>	Suicide & Sustainability <i>Charlotte Kaul RSSB</i>	Accidents & Incidents (2) <i>Alice Monk RSSB</i>	
14:00 - 14:25	Signaller requirements for ETCS data and commands (111) <i>Ged Morrisroe</i>	Evaluating rail suicide prevention measures (94) <i>Brendan Ryan, Urszula Wronska & Ian Stevens</i>	Improving the ability to direct the rescue of passengers and oversee restoration in the event of a major railway disorder (18) <i>Kuratani Masato, Kusakami Ken, Sato Hiroaki & Sakaniwa Jun</i>	WORKSHOP continued
14:25 - 14:50	Development of Team Resilience Training (TRT) (80) <i>Hideaki Ueno & Nobutake Sakai</i>	Using contextual information in the evaluation of the effectiveness of mid-platform fencing (114) <i>Urszula Wronska & Brendan Ryan</i>		
14:50 - 15:15	Reducing the risk of signallers giving level crossing users permission to cross when it is not safe to do so (130) <i>Chris Hack & Mike Carey</i>	Embedding a sustainable development culture; recommendations to overcome the barriers and embrace a culture of sustainability (14) <i>Mary-Elizabeth Cross & Michelle Papayannakos</i>		
15:15 – 15:30	Conference Close			

Thursday 9th November 2017

Technical visits

Conference Organising Committee

Thank you to our conference organising committee:

Meryem Belhaj, UIC, France

Mike Carey, Network Rail, UK

Dr Claire Dickinson, ORR, UK

Dr Aoife Finneran, RSSB, UK

Helen Judd, RSSB, UK

Christian Neveu, SNCF, France

Maria Pieretti, RSSB, UK

Dr Ann Mills, RSSB, UK

Susan Reinartz, ERA, France

Dr Brendan Ryan, University of Nottingham, UK

Prof Sarah Sharples, University of Nottingham, UK

Anita Weltz, RSSB, UK

Mark Young, RAIB, UK

List of delegates (correct on 27 October)

Name	Surname	Country	Company
Andreas Lumbe	Aas	Norway NSB,	Traffic Safety
Bart	Accou	France	European Union Agency for Railways
Pontus	Alm	Sweden	SNC-Lavalin Rail & Transit AB
Tove	Andersson	Sweden	Trafikverket
Mark	Andrew	Australia	GHD Advisory
Araceli	Aranda	Spain	NSA Spain
Jan	Asmussen	United Kingdom	Innovace Designs Ltd.
Nora	Balfe	Ireland	Commission for Railway Regulation
Dan	Basacik	United Kingdom	RSSB
Meryem	Belhaj	France	UIC
Andrea	Biava	Italy	ANSF
Hans	Bjørnseth	Norway	Accident Investigation board Norway
Fiona	Bird	United Kingdom	Bombardier Transportation
Harry	Blanchard	United Kingdom	Arthur D. Little
Leo	Boer	Netherlands	DB Cargo Netherlands
Laila	Bouargane	Morocco	Mohammadia Engineering School-Mohammed the fifth University
Jan	Botermans	Netherlands	DB Cargo Netherlands
Nic	Bowler	United Kingdom	Arup
Niels	Brandenburger	Germany	German Aerospace Centre
Marc	Burkhardt	Germany	Siemens AG
Richard	Bye	United Kingdom	Network Rail
Anthony	Byrne	Ireland	Commission for Railway Regulation
Pilar	Calvo Holgado	Spain	ESM Human Factors
Mike	Carey	United Kingdom	Network Rail
Susan	Cassidy	United Kingdom	RSSB
Georgios	Charalambous	United Kingdom	SNC-Lavalin
Louise Juel	Clemmensen	Denmark	Danish Transport, Construction and Housing Authority
Amy	Clouston	United Kingdom	SNC-Lavalin
Michael	Collins	Australia	Hipotential
Lee	Collins	United Kingdom	Office of Rail and Road
Anthony	Coplestone	United Kingdom	High Speed Two ltd
Estefanía	Cortés	Spain	
Laura	Cottard	France	RATP
Eleanor	Courtney	United Kingdom	Network Rail
Simon	Cran	United Kingdom	Bombardier Transportation
Mary-Elizabeth	Cross	United Kingdom	RSSB
Carsten	Dam Sønderbo-Jacobsen	Denmark	DSB
Inga	Dambuza	South Africa	Railway Safety Regulator

Paul	Davison	United Kingdom	PPWD
Corinne	De Keyser	Belgium	THI Factory
Stephen	Dickinson	United Kingdom	University of Nottingham
Nic	Doncaster	Australia	Genesee & Wyoming Australia
Nicholas	Duck	Australia	Opposite
Franco	Ehrat	Switzerland	Swiss Federal Railways SBB
Rawia	El Rashidy	United Kingdom	University of Huddersfield
Amanda C.	Elliott	United Kingdom	Innovace Designs Ltd.
Takashi	Enomoto	Japan	East Japan Railway Company
Bjorn	Feys	Belgium	THI Factory (Thalys)
Aoife	Finneran	United Kingdom	Bombardier
Craig	Fletcher	Australia	Ergonomie Australia Pty Limited
Toni	Flint	United Kingdom	RSSB
Abigail	Fowler	United Kingdom	University of Nottingham
Oliver	Fried	Australia	Transport for New South Wales, Sydney Metro Delivery Office
Jorgen	Frohm	Sweden	Swedish Transport Administration (Trafikverket)
Félix	García	Spain	Renfe
Toby	Garner	United Kingdom	Ricardo
Huw	Gibson	United Kingdom	RSSB
Baltasar	Gil	Spain	ESM Human Factors
Vicky	Gliddon	United Kingdom	Greenstreet Berman Ltd
David	Golightly	United Kingdom	University of Nottingham
Florian	Gula	Hungary	Transportation Safety Bureau Hungary
Chris	Hack	United Kingdom	Network Rail
Mark	Halliday	United Kingdom	M W Halliday Associates
Chris	Harrison	United Kingdom	RSSB
Suzanne	Heape	United Kingdom	Siemens Rail Automation
Anthea	Hickey	Australia	University of New South Wales
Ioic	Hombert	France	UVHC- Lamih UMR CNRS 8201
Paul	Hsu	Taiwan	Taiwan High Speed Rail Corporation
Po-Chi	Huang	Germany	Institute of Railway Systems Engineering and Traffic Safety, TU Braunschweig
Hungpo	Huang	Taiwan	Taiwan High Speed Rail Corporation
Peter	Hughes	United Kingdom	University of Huddersfield
Jessica	Hutchings	South Africa	Wits University
Giselle	Hyams	United Kingdom	Merseyrail
Angela	Jeffery	Australia	TasRail
Nadia	Jouni	United Kingdom	Siemens

Name	Surname	Country	Company
Rajkiran	Kandola	United Kingdom	Amey Plc
Charlotte	Kaul	United Kingdom	RSSB
Tony	Kavanagh	Ireland	Rail Accident Investigation Unit
Lena	Kecklund	Sweden	MTO Safety
Lisa	Kelly	United Kingdom	Ricardo Rail
Fiona	Kenvyn	Australia	Metro Trains Melbourne
Barry	Kirwan	Belgium	Euro Control
Namrita	Kohli	United Kingdom	RSSB
Tetsuya	Komiyama	Japan	West Japan Railway Company
Suganth	Kumar	United Kingdom	Bombardier Transportation
Sanglog	Kwak	Korea (south)	Korea Railroad Research Institute
Shalaka	Kurup	United Kingdom	University of Nottingham
Salvatore	La Delfa	France	University of Valenciennes - LAMIH UMR CNRS 8201
Ulrika	Larson	Sweden	SNC-Lavalin
Paul	Leach	United Kingdom	RSSB
Luke.K.L.	Lee	Taiwan	Taiwan High Speed Rail Corporation
Nikki	Legg	United Kingdom	Coventry University
Laura	Lewis	United Kingdom	Mott MacDonald
Julia	Lo	Netherlands	ProRail
Anne	Lorenz	Germany	Siemens AG
Christopher	Lowe	United Kingdom	Liv Systems
Emma	Lowe	United Kingdom	Network Rail
Mark	Lowten	United Kingdom	Thales GTS
Marty	Lynch	Australia	Opposite (Australia)
Simon	Macmull	United Kingdom	Parsons/Banedanmark
Lukas	Malek	Czech Republic	Siemens
Richard	Madders	United Kingdom	Arcadia Alive PCMS
Lisa	Mannerhagen	Sweden	SNC Lavalin
Michael	Marshall	United Kingdom	Bombardier Transportation
Kuratani	Masato	Japan	East Japan Railway Company
Sethunya	Matsie	South Africa	Railway Safety Regulator
Maria	Matthews	United Kingdom	VolkerRail/Leeds Beckett University
Harvey	McIntosh	United Kingdom	RSSB
Andy	Meeker	United Kingdom	
Birgit	Milius	Germany	Siemens AG
Ann	Mills	United Kingdom	RSSB
Sue	Milner	Australia	Acmena
Kate	Moncrieff	United Kingdom	Network Rail
Alice	Monk	United Kingdom	RSSB

Yuji	Morimoto	Japan	West Japan Railway Company
Ged	Morrisroe	United Kingdom	CCD Design & Ergonomics
Philippa	Murphy	United Kingdom	RSSB
David	Murton	Ireland	Railway accident Investigation Unit
Ian	Naish	Canada	Naish Transportation Consulting Inc.
Nokubonga (Sma)	Ngcamu-Tukulula	South Africa	Railway Safety Regulator
Graham	Nicholas	United Kingdom	RSSB
Michelle	Nolan-McSweeney	United Kingdom	Network Rail / The University of Nottingham
Beverley	Norris	United Kingdom	SNC-Lavalin
Conor	O'Brien	Australia	Wayfind
Shane	O'Duffy	Ireland	Commission for Railway Regulation
Gerrard	O'Rourke	Ireland	Irish Rail
JÜRI	Olde	Estonia	Ministry of Economic Affairs and Communications of Estonia
Eva	Olsson	Sweden	MTO Säkerhet AB
Francisco	Ortiz Nasarre	Spain	Universidad de Valencia
AnnaMaria	Ostlund	Sweden	Swedish Transport Administration
Kirsi	Pajunen	Finland	Finnish Transport Safety Agency Trafi
Elliot	Pata	United Kingdom	PA Consulting
Bernard	Penners	France	UIC
Mark	Phillips	United Kingdom	RSSB
Maria	Pieretti	United Kingdom	RSSB
Gary	Portsmouth	United Kingdom	RSSB
Clare	Povey	United Kingdom	Office of Rail and Road
Karen	Priestley	Hong Kong	Ricardo Hong Kong Limited
James	Pritchard	United Kingdom	University of Southampton
Kirsten	Revell	United Kingdom	University of Southampton
Eric	Rigaud	France	MINES ParisTech
Richard	Roels	United Kingdom	DNV GL
Gregory	Rolina	France	EU Agency for Railways
Ian	Rowe	United Kingdom	Ian Rowe Associates Ltd
Dominic	Russell	United Kingdom	Innovace Designs Ltd.
Brendan	Ryan	United Kingdom	University of Nottingham
Nobutake	Sakai	Japan	West Japan Railway Company
Judit	Sandor	Belgium	Shift2Rail
Clara	Schmitz	Germany	Siemens AG
Andrea	Schneider	Switzerland	Swiss Federal Railways (SBB)
Fabio	Sgroi	Italy	Nuovo Trasporto Viaggiatori
Priya	Shah	United Kingdom	RSSB

Name	Surname	Country	Company
Ben	Shaw	United Kingdom	Network Rail
Claudio	Signoretti	Italy	ANSF
Daniel	Simmons	United Kingdom	CCD Design & Ergonomics
Stuart	Smith	United Kingdom	Abbott Risk Consulting
Ben	Smith	United Kingdom	Bombardier Transportation
Jordan	Smith	United Kingdom	RSSB
Jessica	Smith	Australia	Systra Scott Lister
Joanne	Smyth	United Kingdom	Systra Scott Lister
Viravanh	Somvang	France	Welbees
Tabitha	Steel	United Kingdom	Rail Accident Investigation Branch
Duane	Stott	United Kingdom	Northern Rail
Martin	Stout	United Kingdom	SNC-Lavalin
Maarten	Stoltenberg	Netherlands	ProRail
Sanna	Ström	Finland	VR Track Oy
Kiri-Maree	Taggart	Australia	Ergonomie Australia
Anisha	Tailor	United Kingdom	RSSB
Hiroko	Takeuchi	Japan	West Japan Railway Company
Koichiro	Taki	Japan	RSSB
Andrew	Taylor	United Kingdom	Great Western Railway
Birte	Thomas-Friedrich	Germany	German Aerospace Center (DLR)
Elaine	Thompson	United Kingdom	Mott MacDonald
Emily	Thorne	United Kingdom	Atkins
Eylem	Thron	United Kingdom	Ricardo Rail
Arja	Toola	Finland	Finnish Transport Agency
Claire	Turner	United Kingdom	ERM
Ryutaro	Uenishi	France	Japan Railways
Hideaki	Ueno	Japan	West Japan Railway Company
Richard	van der Weide	Netherlands	INTERGO human factors & ergonomics
Heidi	van Spaandonk	Netherlands	ProRail
Frédéric	Vanderhaegen	France	University of Valenciennes - LAMIH UMR CNRS 8201
Flemming	Vassing Hansen	Denmark	DSB
Vera	Verstappen	Netherlands	Netherlands Railways
Joep	Von Berg	Netherlands	Nederlandse Spoorwegen
Jon	Wackrow	United Kingdom	London Underground
Louise	Walker	United Kingdom	Ricardo Rail
Lawrence	Waterman	United Kingdom	Park Health and Safety
Sam	Waters	United Kingdom	RSSB
Patrick	Waterson	United Kingdom	Loughborough University
David	Watts	United Kingdom	CCD

Matthew	Weingarth	United Kingdom	Network Rail
Anita	Weltz	United Kingdom	RSSB
Mark	Whiteaway	United Kingdom	BMT Asset Performance Ltd
Amanda	Widdowson	United Kingdom	Thales
Marc	Williams	United Kingdom	Maritime & Coastguard Agency
Marit	Wilms	Netherlands	INTERGO human factors & ergonomics
Urszula	Wronska	United Kingdom	University of Nottingham
Beyhan	Yalciner	Netherlands	Dutch Railways
Yutaka	Yoshida	Japan	West Japan Railway Company
Mark	Young	United Kingdom	Rail Accident Investigation Branch
Melcher	Zeilstra	Netherlands	INTERGO human factors & ergonomics



Email enquirydesk@rssb.co.uk
Tel +44 (0) 20 3142 5300
Twitter [@RSSB_rail](https://twitter.com/RSSB_rail)
Web www.rssb.co.uk

RSSB
The Helicon
One South Place
London EC2M 2RB

